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DOCKET NO: UPAP0011-100 (K-1765)  
Serial No.: 09/622,452

OCT 19 2006 PATENT  
Filed: October 31, 2000

**IN THE CLAIMS:**

Please amend claims 7, 18, 33 and 41 and add new claims 46-52 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. **(previously presented)** A pyrogen-free composition comprising a plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements and a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-1, MIP-1 $\alpha$ , MIP-1 $\beta$ , IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1, Mac-1, p150.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE.
2. **(original)** The plasmid of claim 1 wherein said immunogen is a target protein that encodes a pathogen antigen, a cancer-associated antigen or an antigen linked to cells associated with autoimmune diseases.
3. **(original)** The plasmid of claim 1 wherein said immunogen is a pathogen antigen.
4. **(original)** The plasmid of claim 1 wherein said immunogen is an HIV-1 antigen.

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5. (canceled)

6. (original) An injectable pharmaceutical composition comprising the plasmid of claim 1.

7. (currently amended) A method of inducing ~~an immune~~ cytotoxic T cell response in an individual against an immunogen comprising administering to said individual a plasmid of claim 1.

8. (canceled)

9. (previously presented) The plasmid of claim 1 wherein said immunogen is herpes simplex antigen HSV2gD.

10. (previously presented) An injectable pharmaceutical composition comprising the plasmid of claim 9.

11. (previously presented) A method of immunizing an individual against a herpes simplex virus infection comprising administering to said individual a plasmid of claim 9.

12. (previously presented) A pyrogen-free composition comprising two plasmids:

a first plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements; and

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a second plasmid comprising a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-1, MIP-1 $\alpha$ , MIP-1p, IL-8, RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1, Mac-1, p150.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA-3, M-CSF, G-CSF, IL-4, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE.

13. **(original)** The composition of claim 12 wherein said immunogen is a target protein that encodes a pathogen antigen, a cancer-associated antigen or an antigen linked to cells associated with autoimmune diseases.
14. **(original)** The composition of claim 12 wherein said immunogen is a pathogen antigen.
15. **(original)** The composition of claim 12 wherein said immunogen is an HIV-1 antigen.
16. **(canceled)**
17. **(original)** An injectable pharmaceutical composition comprising the composition of claim 12.

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18. **(currently amended)** A method of inducing ~~an immune~~ cytotoxic T cell response in an individual against an immunogen, comprising administering to said individual a composition of claim 12.

19-32. **(canceled)**

33. **(currently amended)** A method of inducing ~~an immune~~ cytotoxic T cell response in an individual against an immunogen comprising administering to said individual:

a nucleic acid molecule comprising a nucleotide sequence that encodes said immunogen operable linked to regulatory elements; and

a nucleic acid molecule comprising a nucleotide sequence that encodes said immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of : MCP-1, MIP-1 $\alpha$ , MIP-1 $\beta$ , IL-8, RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1, Mac-1, p150.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA-3, M-CSF, G-CSF, IL-4, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE.

34. **(original)** The method of claim 33 wherein said immunogen is a target protein that encodes a pathogen antigen, a cancer-associated antigen or an antigen linked to cells associated with autoimmune diseases.

35. **(previously presented)** The method of claim 33 wherein said immunogen is a pathogen antigen.

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36. (original) The method of claim 33 wherein said immunogen is an HIV-1 antigen.

37-39 (canceled)

40. (previously presented) The plasmid of claim 1 wherein said immunogen is a viral antigen.

41. (currently amended) The ~~method~~ composition of claim 12 wherein said immunogen is a viral antigen.

42. (previously presented) The composition of claim 12 wherein said immunogen is herpes simplex antigen HSV2gD.

43. (previously presented) An injectable pharmaceutical composition comprising the composition of claim 42.

44. (previously presented) A method of immunizing an individual against a herpes simplex virus infection comprising administering to said individual a composition of claim 42.

45. (previously presented) The method of claim 33 wherein said immunogen is a viral antigen.

46. (new) The plasmid of claim 1 wherein said immunogen is an influenza antigen.

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47. (new) A method of immunizing an individual against a influenza infection comprising administering to said individual a plasmid of claim 46.
48. (new) A method of immunizing an individual against a pathogen infection comprising administering to said individual a plasmid of claim 3.
49. (new) The composition of claim 12 wherein said immunogen is an influenza antigen.
50. (new) A method of immunizing an individual against a influenza infection comprising administering to said individual a composition of claim 49.
51. (new) A method of immunizing an individual against a pathogen infection comprising administering to said individual a composition of claim 14.
52. (new) A method of claim 33 wherein said immunogen is an influenza antigen.